(54) Title: AUCTION FEE PROCESSING METHOD USING COMPUTER NETWORK SYSTEM
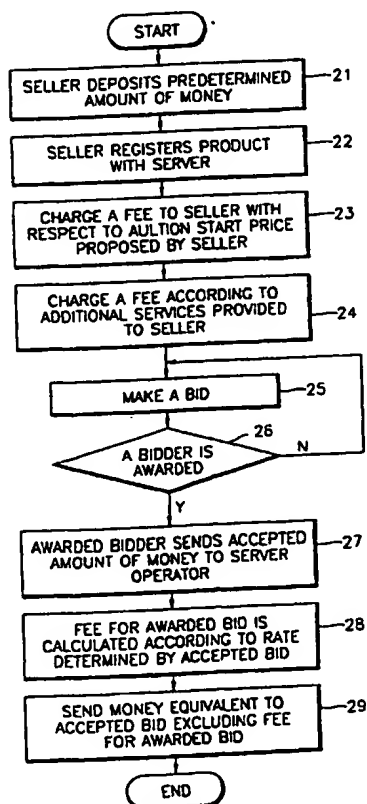
(57) Abstract: An auction fee processing method using a computer network, in which fees required for an auction procedure is automatically processed, is provided. The auction fee processing method includes the steps of sellers registering sales information including the specification of a product to be provided for an auction and an auction method; providing the registered sales information to bidders; bidders making bids for wanted products in the corresponding auction method, after checking the provided sales information; and a server operator determining a first auction fee corresponding to the auction method corresponding to the product when a bid for the product is awarded. According to the method, a server, sellers, and bidders bidirectionally communicate with each other through a communication network, and fees for product registration, fees for additional services, and fees for an awarded bid are automatically processed so that a server operator can stably conduct an auction in relation to charging and receiving fees.

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patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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AUCTION FEE PROCESSING METHOD
USING COMPUTER NETWORK SYSTEM

Technical Field

5   The present invention relates to a method for conducting an auction online using a computer network system, and more particularly, to an auction fee processing method using a computer network system in which fees required for an auction procedure are automatically processed.

Background Art

10   In an auction, a seller provides a product for an auction, bidders make bids for the product, and then a person who proposed the highest bid is awarded the purchase of the product. In line with the development of communications networks such as the Internet, transactions in cyber space are increasingly occurring. Even though a person who operates an area in
15   the cyber space profits through advertisements placed in his area of cyber space, a method in which a user, who receives the services of operators, is charged fees is required.

Disclosure of the Invention

20   To solve the above problems, it is an objective of the present invention to provide an auction fee processing method using a computer network such as the Internet, by which an auction procedure is conducted online among computers connected via the computer network, and server operators can effectively receive fees incurred during the auction
25   procedure.

To accomplish the above object of the present invention, there is provided an auction fee processing method using a communication network, including the steps of sellers registering sales information including the specification of a product to be provided for an auction and an
30   auction method; a server operator providing the registered sales information to bidders; bidders making bids for a product in the

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corresponding auction method based on the provided sales information; and a server operator determining a first auction fee corresponding to the auction method and the price at which a product is sold, when the sale of the product is awarded.

It is preferable that the method further includes the step of when the sale of the product is awarded, the server operator receiving an appropriate amount of money from the winning bidder, and sending the received amount of money minus a predetermined amount of money including a first auction fee for the sale, which is determined corresponding to the auction method, to the seller who provides the product for the auction.

It is preferable that the method further includes the steps of determining a rate for calculating a fee applied to each of a predetermined number of price zones corresponding to the accepted bid; and determining a second auction fee applied to the accepted bid, according to the fee rates.

It is preferable that after the step of sellers registering sales information, the method further includes the steps of the server operator determining the auction start price of a product; and the server operator receiving a product registration fee corresponding to the auction start price of the product, from the seller.

It is preferable that the method further includes the step of determining a third auction fee obtained by subtracting the product registration fee from the first auction fee.

It is preferable that the sales information includes additional services which are wanted by the seller in relation with the auction, and the method further includes, after the step of sellers registering sales information, the step of the server operator receiving a service fee, which is determined according to the kinds of the additional services, from the seller.

It is preferable that a fourth auction fee is determined by subtracting the received service fee from the first auction fee.

To accomplish another object of the present invention, there is

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provided an auction conducting method on a communication network using an auction server, the method including the steps of sellers registering sales information including the specification of a product to be provided for an auction and an auction method; a server operator receiving a

5   predetermined amount of money including a method fee determined based on the auction method; the server operator providing the registered sales information to bidders; bidders making bids on a product in the corresponding auction method based on the provided sales information; and the server operator receiving money from a winning bidder and sending

10   money to the seller who provided the product for the auction, when the sale of the product is awarded.

Brief Description of the Drawings

FIG. 1 illustrates an example of the structure of a computer network

15   system for executing the present invention;

FIG. 2 is a flowchart of an example of a procedure for performing an auction fee processing method according to the present invention; and

FIG. 3A is a table listing fees charged for registration of a product according to an auction start price, FIG. 3B is a table listing fees charged

20   for services according to the methods of an auction or the kinds of additional services, and FIG. 3C is a table listing fees for an awarded sale according to the total accepted bid.

Best mode for carrying out the Invention

25   Hereinafter, embodiments of the present invention will be described in detail with reference to the attached drawings. The present invention is not restricted to the following embodiments, and many variations are possible within the spirit and scope of the present invention. The embodiments of the present invention are provided in order to more

30   completely explain the present invention to anyone skilled in the art.

FIG. 1 illustrates an example of the entire structure of a computer

network system for executing the present invention. A server computer 11 belongs to a company which conducts an online auction. Sellers' computers 12 belong to companies or individuals who provide products to be auctioned. Bidders' computers 14 belong to those who want to buy

5 products in the auction conducted by the server computer 11. Financial institutions 15 are connected to a communication network 13 so that transactions among the server computer 11, sellers' computers 12 and bidders' computers 14 can be performed online.

The server computer 11 has a database storing data for an auction,

10 and a program for executing an auction (not in drawing), and communicates with the sellers' computers 12 and bidders' computers 13 via a communication network.

The sellers' computers 12 and bidders' computers 13, both connected to the communication network 13, have Internet browsers (for

15 example, Netscape, or Internet Explorer) which can display the contents of a web page encoded in hyper text markup language (HTML). The web browser makes each computer access and display the content of an online auction HTML templet in the server computer 11. The HTML templet of the server computer 11 has a main web (WWW) page to be displayed for

20 online auction users such as sellers and bidders.

FIG. 2 is a flowchart of an example of a procedure for performing an auction fee processing method according to the present invention. First, online auction users must visit the home page of the server computer 11 and register themselves as users. For user registration, a user name (ID)

25 and password (cypher) must be input and, to facilitate payment for a product purchased at an auction, bank account or credit card information can be registered.

The sellers can visit the main home page of the server computer 11 through a browser and register a product to be auctioned. To register the

30 product to be auctioned, a seller must transmit to the server computer 11 payment for fees for using the services provided by the server in step 21.

For payment of fees, a predetermined amount of money can be transferred to the server operator so that whenever fee is charged, the fee can be easily paid. The fee can be paid through a bank account opened in a financial institution or online through an Internet bankbook.

A seller inputs information on an auction method, the kind (category) of a product, product name, product specification, areas where the product can be sold, auction period, the amount of the product available, an auction start price, a reference address, etc., and the server computer 11 stores this information in a database in step 22.

The server computer 11 charges a predetermined product registration fee based on the auction start price of the product proposed by the seller, in step 23. The product registration fee can be charged when a product is first registered, regardless of whether or not a sale is concluded. The server operator receives payment of fees in the form of payment used by the seller and starts the auction.

FIG. 3A is a table listing fees charged for registration of a product according to an auction start price. The higher an auction start price is, the higher the fee is, but when an auction start price is higher than a predetermined amount of money, the fee is fixed.

A seller can select the method of an auction. The server computer 11 provides not only a general auction method but also various other auction method. For example, special corners, such as "Today's Special", "Speed auction", or "Special treatment", can be provided, or "New Tag" or "Bold Title" can be used to make product information easily found by bidders' so that the seller's product can appeal to bidders.

In "Today's Special", guidance to promote bidders' participation in an auction and detailed information on a product to be auctioned are provided. Predetermined cyber money or benefits are given to bidders, who competitively participate in the "Today's Special" auction, so that a seller can sell a product more assuredly. In this case, the competitively participating bidders can be predetermined people among people who bid

high, excluding a person who purchased an item.

An auction closing time guide is generally provided at predetermined intervals. A "Speed auction" is a service for bidders who want to conclude an auction relatively quickly. An auction closing time guide usually

5 provided for a normal auction is provided more frequently in the "Speed auction" and a guide itself can be provided in the form of an advertisement. In this way, more . bidders can participate in an auction and the disadvantage of concluding an auction can be lessened, and an item can be sold at a more reasonable price.

10 In addition to the above-described methods, "Brand auction" or "business to business (B2B) auction" are available.

"Brand auction" is an auction for which companies registered as cooperative companies with an auction provide and sell products for the purpose of advertisement and public relations. In a "Brand auction", a

15 product can be auctioned off at a special price. That is, the products of those companies, which can be guaranteed and credited by an auction site, are provided at lower prices.

"B2B auction" is an auction for companies to participate in, using electronic commerce, and is conducted in an environment, in which all

20 transactions of participating companies, who have done business offline, do all transactions online. Through "B2B auction", each company can dispense with documents, which have been sent and received in offline sales and purchasing, and simplify a transaction process. Information about events occurring in each step of the process can be shared by

25 multiple economic entities and a connection between sellers and buyers becomes appropriately available as well, so that mutual reciprocity between suppliers and buyers can ultimately be maximized.

It is not preferable that the same fees are charged for all the above-described methods. Therefore, auction fees must be calculated

30 appropriately depending on the methods.

A server operator charges a service fee with a predetermined rate

according to the auction method (or the kind of additional services) selected by a seller in step 24. Service fees can be charged regardless of whether or not a sale is concluded. FIG. 3B is a table listing fees charged for services according to the auction method or the kinds of additional

5   services.

Various products from a plurality of sellers are registered and information on the products is provided to the bidders' computers 14. The bidders' computers 14 visit an auction market opened in the server computer 11 and make bids for wanted products in step 25. Bidders search

10   product information provided in the server computer, using the browsers of the bidders' computers 14. The bidders select wanted products and input and send information on bids and delivery places/dates, to the server computer 11. The server computer 11 stores bid information on each product in a database.

15   When an auction product is sold in an auction in step 26, the winning bidder pays the appropriate amount of money to the server operator in step 27. The appropriate amount of money, for example, can be an amount equivalent to the accepted bid. Payment methods includes an online payment or a giro payment.

20   The server operator receives the money from the winning bidder and calculates a fee for the sale according to the accepted bid in step 28. FIG. 3C is a table listing fees for a sale according to the total accepted bid. The fee for the sale is calculated by determining fee rates for respective ranges of the total accepted bid and applying the fee rates.

25   Referring to the example shown in FIG. 3C, when the total accepted bid is equal to or lower than ₩50,000, a fee rate of 3.0% of the accepted bid is applied. When the total accepted bid is between ₩50,001 and ₩150,000, a fee rate of 3.0% of ₩50,000 (A) and 2.5% of the amount exceeding ₩50,000 is applied. When the total accepted bid is between

30   ₩150,001 and ₩500,001, a similar calculation method is applied. For example, when the total accepted bid is ₩220,000, the total fee is 50,000

x 3.0% + 100,000 x 2.5% + 70,000 x 2.0% = ₩5,400.

A fee for a sale is calculated by a percentage according to the accepted bid, and the higher the accepted bid is, the lower the percentage applied to the price is made to be. Product registration fees and service fees are charged when a product for an auction is registered, regardless of whether or not a successful bid is made, while the fee for a sale is charged to the winning bidder, only when a product provided by a seller is sold. Though a sale is concluded, if the product is recalled or the sale is refused, the fee for the sale may not be charged. The server operator sends the appropriate amount of money excluding the fee for the sale. Meanwhile, fees may not be applied to such things as real estates, stocks, and bonds.

The present invention may be embodied in a code, which can be read by a computer, on a computer readable recording medium. The computer readable recording medium may be any kind on which computer readable data are stored.

The computer readable recording media may be storage media such as magnetic storage media (e.g., ROM's, floppy disks, hard disks, etc.), optically readable media (e.g., CD-ROMs, DVDs, etc.), or carrier waves (e.g., transmissions over the Internet). Also, the computer readable recording media can be scattered on computer systems connected through a network and can store and execute a computer readable code in a distributed mode.

Industrial Applicability

As described above, according to the auction fee processing method of the present invention, a server, sellers, and bidders communicate with each other through a communication network, and fees for product registration, fees for additional services, and fees for a sale are automatically processed so that a server operator can stably conduct an auction in relation to charging and receiving fees.

<u>What is claimed is:</u>

1.   An auction fee processing method using a communication network, comprising the steps of;

sellers registering sales information including the specification of a

5   product to be provided for an auction and an auction method;

a server operator providing the registered sales information to bidders;

bidders making bids for a product in the corresponding auction method based on the provided sales information; and

10   a server operator determining a first auction fee corresponding to the auction method and the price at which a product is sold, when the sale of the product is awarded.

2.   The auction fee processing method of claim 1, further

15   comprising the step of:

when the sale of the product is awarded, the server operator receiving an appropriate amount of money from the winning bidder, and sending the received amount of money minus a predetermined amount of money including a first auction fee for the sale, which is determined

20   corresponding to the auction method, to the seller who provides the product for the auction.

3.   The auction fee processing method of claim 1, further comprising the steps of:

25   determining a rate for calculating a fee applied to each of a predetermined number of price zones corresponding to the accepted bid; and

determining a second auction fee applied to the accepted bid, according to the fee rates.

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4.   The auction fee processing method of claim 1, after the step

of sellers registering sales information, further comprising the steps of:

the server operator determining the auction start price of a product; and

5   the server operator receiving a product registration fee corresponding to the auction start price of the product, from the seller.

5.   The auction fee processing method of claim 4, further comprising the step of:

determining a third auction fee obtained by subtracting the product 10   registration fee from the first auction fee.

6.   The auction fee processing method of claim 1, wherein the sales information includes additional services which are wanted by the seller in relation with the auction, the method further comprising, after the 15   step of sellers registering sales information, the step of:

the server operator receiving a service fee, which is determined according to the kinds of the additional services, from the seller.

7.   The auction fee processing method of claim 6, wherein 20   a fourth auction fee is determined by subtracting the received service fee from the first auction fee.

8.   An auction conducting method on a communication network using an auction server, the method comprising the steps of:

25   sellers registering sales information including the specification of a product to be provided for an auction and an auction method;

a server operator receiving a predetermined amount of money including a method fee determined based on the auction method;

the server operator providing the registered sales information to 30   bidders;

bidders making bids on a product in the corresponding auction

method based on the provided sales information; and

the server operator receiving money from a winning bidder and sending money to the seller who provided the product for the auction, when the sale of the product is awarded.
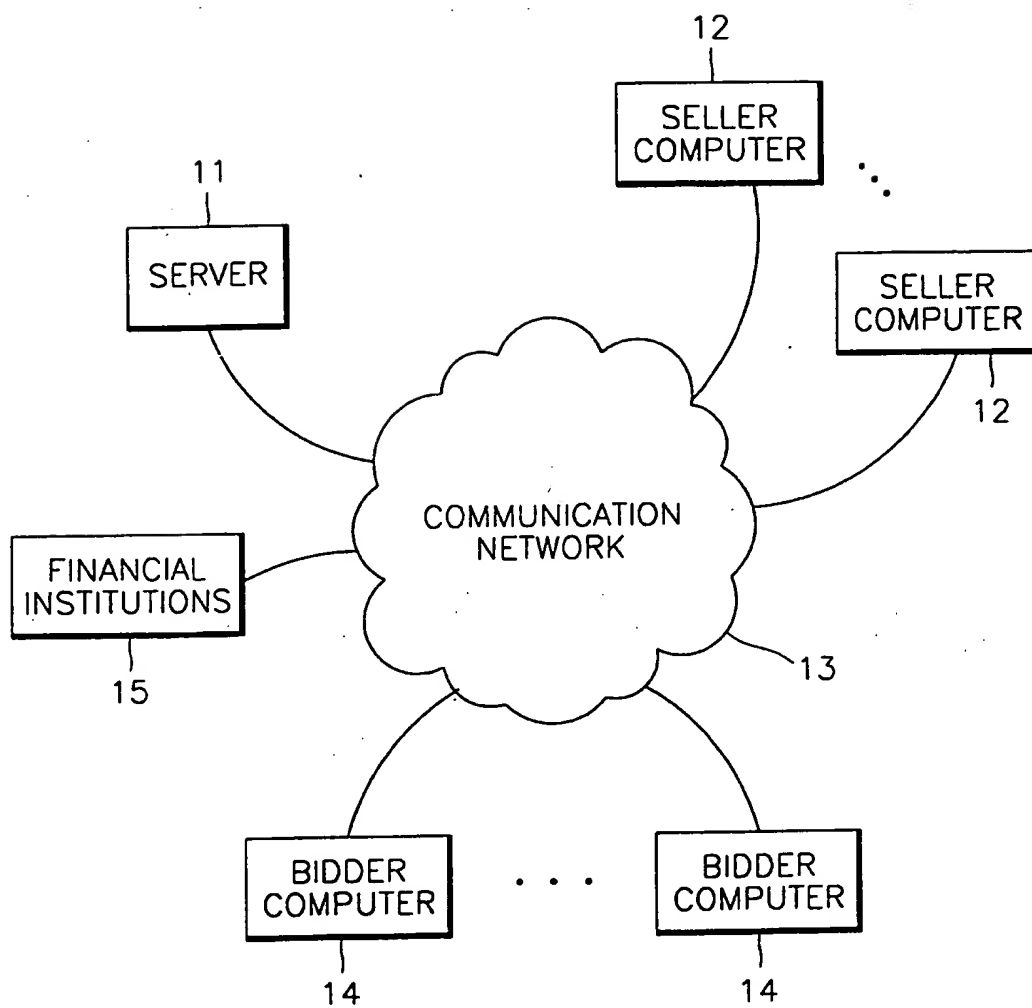
5

9.   A computer readable recording medium which stores a program for executing the automatic bid processing method of any one of claims 1-8.

10   10.   A computer readable recording medium which stores program instructions for executing the automatic bid processing method of any one of claims 1-8.
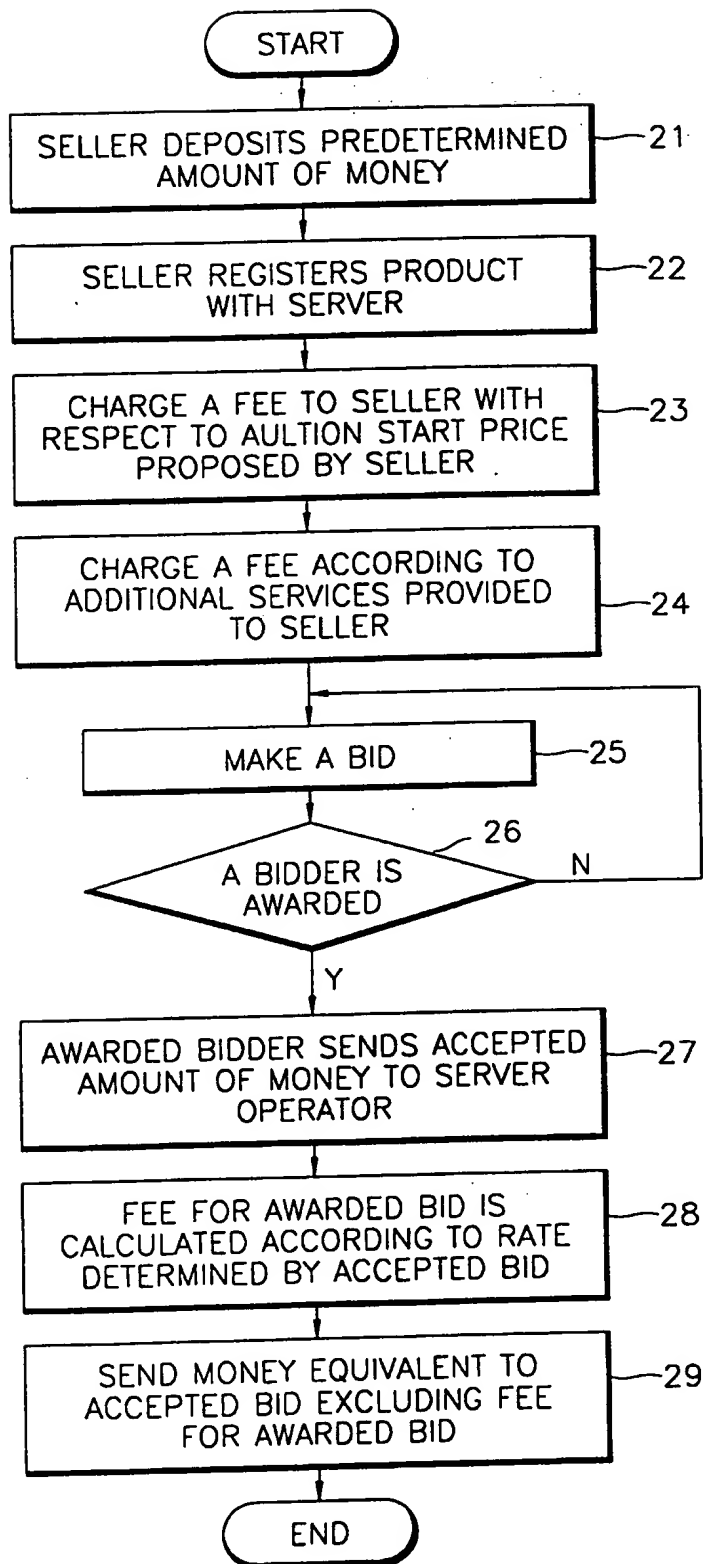
FIG. 1

FIG. 2

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                      ┌──────────┐
                      │  START   │
                      └──────────┘
                           │
                           ▼
        ┌──────────────────────────────────┐
        │ SELLER DEPOSITS PREDETERMINED     │──── 21
        │        AMOUNT OF MONEY            │
        └──────────────────────────────────┘
                           │
                           ▼
        ┌──────────────────────────────────┐
        │   SELLER REGISTERS PRODUCT        │──── 22
        │        WITH SERVER                │
        └──────────────────────────────────┘
                           │
                           ▼
        ┌──────────────────────────────────┐
        │ CHARGE A FEE TO SELLER WITH       │──── 23
        │ RESPECT TO AULTION START PRICE    │
        │      PROPOSED BY SELLER .         │
        └──────────────────────────────────┘
                           │
                           ▼
        ┌──────────────────────────────────┐
        │ CHARGE A FEE ACCORDING TO         │
        │ ADDITIONAL SERVICES PROVIDED      │──── 24
        │           TO SELLER               │
        └──────────────────────────────────┘
                           │
                           ▼
            ┌──────────────────────────┐
            │        MAKE A BID        │──── 25
            └──────────────────────────┘
                           │
                           ▼
                      ╱─────────╲          26
                    ╱  A BIDDER IS ╲─── N
                    ╲   AWARDED    ╱
                      ╲─────────╱
                           │ Y
                           ▼
        ┌──────────────────────────────────┐
        │ AWARDED BIDDER SENDS ACCEPTED     │──── 27
        │ AMOUNT OF MONEY TO SERVER         │
        │           OPERATOR                │
        └──────────────────────────────────┘
                           │
                           ▼
        ┌──────────────────────────────────┐
        │ FEE FOR AWARDED BID IS            │──── 28
        │ CALCULATED ACCORDING TO RATE      │
        │ DETERMINED BY ACCEPTED BID        │
        └──────────────────────────────────┘
                           │
                           ▼
        ┌──────────────────────────────────┐
        │ SEND MONEY EQUIVALENT TO          │──── 29
        │ ACCEPTED BID EXCLUDING FEE        │
        │      FOR AWARDED BID              │
        └──────────────────────────────────┘
                           │
                           ▼
                      ┌──────────┐
                      │   END    │
                      └──────────┘
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FIG. 3A

AUCTION START PRICE	FEE
₩0 ~ ₩49,999	₩500
₩50,000 ~ ₩149,000	₩1000
₩150,000 ~ ₩499,999	₩2000
₩500,000 OR MORE	₩3000

FIG. 3B

CLASSIFICATION	APPLLIED FEE
GENERAL AUCTION	NONE
Today's Special	₩10,000
Speed AUCTION	₩10,000
SPECIAL TREATMENT	₩2,000 (ADJUSTED UPWARDS)
New Tag	₩1,000 (ADJUSTED UPWARDS)
BOLD TITLE	₩1,000 (ADJUSTED UPWARDS)

FIG. 3C

TOTOAL ACCEPTED BID	APPLIED FEE
₩0 ~ ₩50,000	3.0% OF TOTOAL ACCEPTED BID
₩50,001 ~ ₩150,000	A+2.5% OF THE AMOUNT EXCEEDING ₩50,000
₩150,001 ~ ₩500,000	B+2.0% OF THE AMOUNT EXCEEDING ₩150,000
₩500,001 OR MORE	C+1.5% OF THE AMOUNT EXCEEDING ₩500,000

INTERNATIONAL SEARCH REPORT

A.   CLASSIFICATION OF SUBJECT MATTER

IPC7 G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B.   FIELDS SEARCHED

Minimun documentation searched (classification system followed by classification symbols)

IPC7 G06F17/60

Documentation searched other than minimun documentation to the extent that such documents are included in the fileds searched

Korean Patents and applications for inventions since 1975

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search trerms used)

http://www.delphion.com, auction<and>fee

C.   DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SUBRAMANIAN, S.; SINGHAL, M. 'Real-time aware protocols for general e-commerce and electronic auction transactions' In:IEEE Proceedings. 19th IEEE International Conference on Distributed Computing Systems Workshops : IEEE, 1999, Page(s): 65 -66	1
P, A	US 6064981 A (NEIL A. BARNI, DANIEL M. MILLER), 16 May 2000 See column 2, line 12 - 28, column 7, line 55 - column 8, line 3, claim 7	1

☐ Further documents are listed in the continuation of Box C.   ☐ See patent family annex.

*   Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevence
"E" earlier application or patent but published on or after the international filing date
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"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevence; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevence; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents,such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
09 FEBRUARY 2001 (09.02.2001)	12 FEBRUARY 2001 (12.02.2001)

Name and mailing address of the ISA/KR	Authorized officer
Korean Industrial Property Office Government Complex-Taejon, Dunsan-dong, So-ku, Taejon Metropolitan City 302-701, Republic of Korea Facsimile No. 82-42-472-7140	KWON, Oh Bok Telephone No. 82-42-481-5994

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